



MCI Communications Corporation

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FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF SECRETARY

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EX PARTE

January 19, 1995

Mr. William F. Caton Secretary Federal Communications Commission Room 222 1919 M Street NW Washington, D.C. 20554

Re: CC Docket 92-77; Billed Party Preference

Dear Mr. Caton:

The attached document, "Comments on the SPR Study of the Relationship between Advertising and Sales" by Dr. Kenneth Baseman addresses a number of infirmities in a paper submitted to the FCC in this proceeding by APCC.

Today, I have distributed copies to the FCC staff listed below.

Please include this report in the record of this proceeding.

Sincerely,

Leonard S. Sawicki

cc: Mr. Mark Nadel

Mr. Gary Phillips

Ms. Kathleen Wallman

No. of Copies rec'd Ot (

Comments on the SPR Study of the Relationship between Advertising and Sales

Kenneth C. Baseman

January 17, 1995

Microeconomic Consulting and Research Associates, Inc. (MiCRA) Suite 1200 1875 Eye Street N.W. Washington D.C. 20006 Strategic Policy Research (SPR) submitted a study to the Commission entitled "The Marketing Costs of Billed Party Preference". The study claims that there is strong reason to believe, on both theoretical and empirical grounds, that in the long distance telephone industry selling expenses, and most particularly advertising expenses, will be a constant fraction of sales. Moreover, SPR argues that advertising to sales ratio will be quite high (about 20% of sales). SPR claims this argument is relevant because, to the extent that advertising or other selling expenses by the long distance industry will increase as billed party preference is implemented, the costs of billed party preference will have been underestimated by the Commission. In the extreme, if the SPR propositions were correct, total selling expenses would not change under billed party preference. The form would change, as other forms of promotional spending replaced commissions, but the amount would not since, according to SPR, the total amount of selling expenses will be a constant fraction of sales.

The SPR analysis provides no reasoned basis for inferring or predicting anything about the effects of billed party preference on selling or advertising expenses by long distance carriers. The theoretical concepts they apply here are inappropriate. SPR completely misinterprets the empirical literature they cite. And their empirical prediction that advertising levels are a high (about 20%) and constant fraction of sales is demonstrably false when compared to the facts in the long distance business.

SPR's Claim That The Advertising/Sales Ratio is Constant is Unsupported

SPR's prediction that advertising or selling expenses are a constant fraction of sales is

¹To be conservative, SPR assume that selling expenses will be only 8% of incremental sales, or slightly less than one-half the ratio that they claim is implied by the empirical assessments presented in their paper.

based on a theoretical model coupled with claims that assumptions necessary in the model for the advertising/sales ratio to be constant are empirically valid in the long distance industry. The theoretical analysis -- from Dorfman and Steiner's 1954 article -- is based on a model of an unregulated monopolist (or a firm with no interaction with any rivals) and therefore clearly an inappropriate model for the long distance market. Even within the context of the model, there are two critical assumptions necessary to the conclusion that advertising/sales ratio will be constant. Those assumptions are that the marginal value product of advertising and the elasticity of long distance demand with respect to advertising remain constant. SPR offers no legitimate empirical justification for either of these assumptions.

SPR argues that the marginal value product of advertising is constant because the market price elasticity of demand for operator-assisted long distance service is likely less than price elasticity for long distance service generally. As a result, they can apply the Dorfman-Steiner result that the marginal value product of advertising equals the price elasticity of demand. This, SPR claims, is conservative. Since the price elasticity for operator-assisted services is lower than for long distance generally, and using a lower demand elasticity "would be associated with increased advertising expenditures." (p. 4) In effect, what SPR is assuming is that operator-assisted calls are currently "contested" via commissions. With billed party preference in place, the marketing competition will shift to advertising. Since the price elasticity of demand is, if anything, lower for operator-assisted calls, SPR "conservatively" assume the price elasticity will not change, and therefore the Dorfman-Steiner result implies that the marginal value product of advertising will remain constant as billed party preference is implemented. This is the first of the assumptions they are trying to validate.

SPR confuse market demand elasticities with firm demand elasticities, and the confusion severely undermines their analysis. It is the FCC's expectation that the change in market institutions brought about by billed party preference will increase the potential role that price and quality competition will play in determining the customer's choice of long distance carrier. In the current market environment, price cuts to the billed party are a relatively ineffective competitive tool because the billed party does not choose the carrier. Billed party preference dramatically changes the market institutions, so that price cuts (or quality improvements) can more directly affect a long distance carrier's success in the market place. To put the FCC's expectation in terms of the Dorfman-Steiner optimality conditions, the FCC expects that billed party preference will increase the own price elasticity of demand facing each carrier. If anything like the Dorfman-Steiner condition operates², this, in turn, will lead to a change (an increase) in the marginal value product of advertising (and a lower level of advertising). Whether one agrees with the FCC's expectation or not, it is clear that the Commission's implied prediction about the effects of a change in market environment on each firm's price elasticity of demand for the directly affected operator assisted services cannot be rebutted with evidence pertaining to relative market demand elasticities across segments of the long distance business.

SPR argues that the advertising elasticity is constant based on a study by James Griffin of the demand for <u>intrastate long distance</u> telecommunications in five Southwestern states between 1966 and 1978. This is a rate-of-return regulated monopoly environment, without even the threat of effective near term entry. At most, the Griffin study then tells us something about

²That is, if a condition analogous to the Dorfman-Steiner condition were operative in an appropriate multi-player model of the advertising/pricing competition.

a relationship between advertising and market demand. Of course, in an environment with far greater competition, like today's interLATA market, firms advertise primarily to take business away from their rivals, and any effect of the advertising on market demand is a largely unintended by-product.

Moreover, Griffin's study should be interpreted carefully for current purposes. SPR argues that since Griffin achieved a good statistical fit assuming that the advertising elasticity was constant, that is good evidence that the advertising elasticity was in fact constant (in that monopoly market in those years). However, since Griffin did not report any results employing any other assumption about advertising elasticity, one cannot assert that nonconstant elasticities are ruled out by his analysis.

Finally, and perhaps most importantly, SPR's reliance on the Griffin study is inappropriate evidence because advertising elasticity is defined as the percentage change in sales associated with a given percentage change in advertising, holding all else -- including important institutions -- constant. If important market institutions are changing -- as with billed party preference -- decisions about advertising will be affected by factors other than those that determine advertising elasticity in a stable market environment.³

³To illustrate, suppose that the government were considering a requirement that all advertising for long distance services must be done in Hungarian. We can all agree that this change in market institutions would virtually eliminate long distance advertising in the U.S. We would all hold this expectation despite the Dorfman-Steiner conditions, which tells us that the marginal value product of advertising won't change unless the price elasticity of demand does, and a study of a Southwestern monopoly market twenty-five years ago provides evidence of a constant advertising elasticity. According to SPR, however, because of this powerful evidence, we should expect advertising to remain a constant fraction of long distance revenues.

SPR's assertion that the economics literature also supports a constant advertising to sales ratio is also unfounded.

SPR argue that their work derives further support from a "general empirical result" in the literature on the economics of advertising. They cite the work of Comanor and Wilson⁴ who, they say, found "no statistical evidence that the advertising-to-sales ratio declines as demand increases" (p. 6) because "the estimated coefficient...on the variable for the <u>level</u> of demand is not statistically significant." (pp. 5-6, emphasis added) However, SPR misinterprets the regression results they cite. Contrary to SPR's claim, there is no variable in the cited regression for demand level. There is a variable for demand growth, which SPR apparently misinterpreted as a demand level variable. In addition, the cited regression is at an intermediate stage of the Comanor and Wilson presentation. C & W report that the regression performs poorly ("What this suggests is that we have not measured the primary factors that determine the effectiveness of advertising expenditures, and this failure has severely restricted the explanatory power of the equation.")⁵ C&W go on to partion the sample to try and generate more meaningful economic insights.

Interestingly, Comanor and Wilson interpret their own work quite differently than SPR. They find it important to consider the advertising-to-sales ratio separately for high advertising industries (with mean advertising-to-sales ratios around 4.0%.)⁶ In such high advertising industries, advertising to sales ratios decline with firm size, and the finding is statistically

⁴William S. Comanor and Thomas A. Wilson, <u>Advertising and Market Power</u> (Cambridge, Mass.; Harvard University Press, 1974.

⁵Ibid., p. 153.

⁶By this standard, interLATA telephone service is a high advertising industry if SPR's estimates of advertising intensity are given any credence.

significant at the 1% level.7

In addition, the major commentators in the economics literature do not interpret the Comanor and Wilson research in the same way that SPR does. Richard Schmalensee, in his chapter in the <u>Handbook of Industrial Organization</u>, cites the same Comanor and Wilson work for the authors' own interpretation, not SPR's revisionist interpretation.

Within consumer good industries, Comanor and Wilson (1974) found that leading firms had higher advertising/sales ratios than followers when the industry advertising/sales ratio was low, but that the leaders spent a smaller percentage of revenue on advertising when the industry ratio was high.⁸

SPR's Assessment of the Level of the Advertising Ratio is Unfounded

SPR's estimate of the level of the advertising to sales ratio is also unpersuasive. SPR notes that MCI financial reports indicate that administrative and selling expenses account for 28% of sales revenue. SPR then asserts, without offering a shred of evidence, that it is "reasonable" to assume 10% of this amount is for administration, leaving 18% for selling expenses. Of this 18%, SPR asserts (again without any stated basis) that advertising costs are the "primary" component.

⁷Comanor and Wilson, <u>op. cit.</u>, pp. 198, 202. Moreover, in industries where the advertising-to-sales ratio increases with firm size, Comanor and Wilson say the likely reason is that the large and small firms compete indirectly, or in different segments of the overall industry. This because Comanor and Wilson generally find it plausible that there are economies of scale in advertising, so smaller firms either have to spend more on advertising per dollar of sales, or avoid direct competition with the industry leaders. See p. 203.

⁸Richard Schmalensee, "Inter-Industry Studies of Structure and Performance", in Schmalensee and Willig, eds., <u>Handbook of Industrial Organization</u>, Vol. 2, North-Holland 1989, p. 996. Schmalensee also cites other studies also finding that advertising sales ratios declined with sales volume.

SPR also reports that Sprint is willing to spend up to 20% of incremental sales as commissions to "aggregators". The Sprint evidence cited by SPR is largely irrelevant. Their claim that Sprint would spend as much on other advertising as it does on commissions amounts to nothing more than assuming the answer they desire. In fact, commissions and other advertising are quite different in nature. Sprint is willing to spend a high ratio of expected revenues on commissions precisely because the commission is highly focused and highly certain. If Sprint offers the highest commission, it gets the business with certainty and there will often be an historical track record (e.g. of long distance calls from a hotel) that allows it to value the business quite precisely. If Sprint loses the bidding for the business, it does not incur a commission expense. In contrast, ordinary advertising is far less certain to generate business, and the expense is incurred before one knows whether the advertisement will be successful.

But the most compelling evidence that SPR's position is unwarranted is that AT&T spends only about 2% of revenues on advertising⁹ -- far lower than the ratios SPR attributes to Sprint and MCI. Clearly, either SPR is wrong that advertising is a constant fraction of sales, or it has grossly overestimated the advertising/sales ratios for MCI and Sprint.¹⁰ Either error will lead SPR to overestimate the advertising expenses associated with incremental business.

⁹See Statistics of Communications Common Carriers, various years. Since 1986, AT&T's advertising expenses have fluctuated between 1.5% and 2.5% of AT&T Communications' revenues.

¹⁰This latter error seems empirically most likely, since public sources also place MCI's and Sprint's advertising/sales ratios at less than 2%. The <u>Standard Directory of Advertisers</u> (Reed Publishing 1994, pp. 1492, 1510) estimates that MCI's advertising/sales ratio for 1991 was 1.65%. Sprint's ratio was even lower (at 1.42%), but Sprint is more diversified outside of long distance so the number is potentially less meaningful.

SPR Does Not Address Reasons Billed Party Preference May Reduce Advertising

Billed party preference may well lead to a reduction in advertising. The current market environment has lead to substantial consumer frustration with long distance service and charges from captive or quasi-captive locations like hotels and pay phones. One reaction of the long distance carriers has been to create and market products designed to help the customers avoid either inconvenience or excessive charges at such locations. Prominent examples are MCI's 1-800-COLLECT and AT&T's 1-800-CALLATT. Both the market for such products and the associated need for heavy advertising of them, will be reduced under billed party preference.

Conclusion

The SPR study provides no coherent or defensible basis for their estimates of increased advertising expenditures if billed party preference is implemented.



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Education

1975 Ph.D. Candidate, Economics, Stanford University (M.A. plus two years additional course and seminar work required for admission to Ph.D. candidacy.)

1975 M.A., Economics, Stanford University

1971 B.A., Economics, magna cum laude, Carleton College

Experience

Mr. Baseman is a Principal of Microeconomic Research and Consulting Associates, Inc., (MiCRA). He was a founder of the firm in 1991.

Prior to joining Micra, Mr. Baseman was a vice president of ICF Consulting Associates and previously employed by the Antitrust Division of the U.S. Justice Department (1975-1981, 1983-1985) and by Economists, Inc. (1981-1983). In these positions, he conducted detailed economic studies in a wide variety of industries, including: telecommunications; computer software; cable television; crude oil markets; tires; numerous chemicals; newspapers; electric utilities; air conditioning; elevators; jet engines; and various aspects of the television industry, including program production; contractual licensing arrangements, music licensing, TV set manufacturing and R&D joint ventures.

While with the Antitrust Division from 1983 to 1985, Mr. Baseman was the lead staff economist assigned to the majority of the mergers in chemical industries examined by the Antitrust Division. In his eight years with the Antitrust Division, Mr. Baseman was the staff economist in approximately one dozen detailed merger investigations.



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As a private consultant, his work has been primarily focused on providing economic analysis for antitrust or regulatory issues. Mr. Baseman has headed or (where indicated) shared lead responsibility for the following projects:

- Preparation and presentation of economic analysis to the Antitrust Division about Michelin's acquisition of Uniroyal Goodrich.
- Preparation of a report, co-authored with Frederick Warren-Boulton, on the competitive effects of Microsoft's licensing practices for operating systems and complementary software.
- Economic testimony on behalf of Trane on market power, market definition, and vertical restraint issues in Tarrant v. Trane.
- Affidavit and deposition testimony on behalf of PMBR in its antitrust litigation with BAR/BRI.
- Preparation and presentation of economic analysis to the FTC on First Data Corporation's proposal acquisition of Western Union.
- Preparation and presentation of economic analysis to the FTC on Illinois Tools Works' acquisition of Cyklop.
- Preparation of economic analysis submitted to the FTC on Brunswick's licensing and acquisition agreement with Perry-Austen.
- Preparation of an affidavit for MCI on the effects of expanded interconnection between local telephone companies and competing providers of access.
- Preparation of an affidavit, co-authored with Robert J. Reynolds, on the market power issues in an FERC abandonment proceeding in the natural gas pipeline industry.
- Preparation and presentation of economic analysis to the FTC concerning Witco's acquisition of DeSoto.
- Preparation of several reports for MCI, some of which were co-authored with Stephen Silberman, on the effects of price cap regulation; especially as applied to the local exchange carriers. Presentation of the analysis to the FCC staff.

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- Preparation of a report for the National Cable Television Association on integration by local telephone companies into video programming markets.
- Preparation of a report, co-authored with John Woodbury, Frederick Warren-Boulton and Daniel Sherman, for the National Cable Television Association on the effects on consumers of cable deregulation.
- Economic testimony on behalf of the Antitrust Division in hearings on the proposed newspaper joint operating agreement in Detroit.
- Preparation of a report for MCI, co-authored with Stephen Silberman, on the economics of line-of-business restrictions.
- Presentation of economic analysis and deposition testimony to the FTC involving a merger in the chemicals industry (Henkel Corp. acquisition of Parker Chemical).
- The preparation of testimony to be presented by Mr. Baseman, on behalf of the U.S. Justice Department, in an electric utility monopolization case (U.S. v. Kentucky Utilities).

In addition, Mr. Baseman was substantially involved in the following projects:

- Preparation and presentation of economic analysis to the Antitrust Division concerning Akzo's acquisition of Filtrol.
- Preparation of a report on principles for evaluating "significant economic harm," submitted by INTELSAT to its members in treaty consultation over the entry of the Orion satellite network.
- Preparation of expert testimony submitted to FERC by an ICF colleague on the effect of Northeast Utilities' acquisition of Public Service of New Hampshire.
- Iron ore damages litigation.
- Preparation and presentation of economic analysis to the FTC concerning General Electric's acquisition of Roper Corporation.
- Preparation and presentation of economic analysis to the FTC concerning Stanadyne's proposed acquisition of United Technologies Diesel Systems Division.

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- Preparation and presentation of economic analysis to the Antitrust Division concerning General Electric's acquisition of Thomson CGR's medical imaging business.
- Several business assessments of proposed acquisitions to determine the extent of mergerrelated cost savings and/or synergies.
- Antitrust assessments of possible mergers or joint ventures in several industries, including;
 - several such assessments in the HVAC industry
 - two assessments in the elevator industry
 - two assessments in the jet engine industry
- An antitrust assessment of an R&D joint venture for computer software.
- The preparation of testimony to be presented by an ICF colleague in Kepco v. Kansas Power and Light, a monopolization case in the electric utility industry.

Publications

- "The Detroit Newspaper Joint Operating Agreement," in Kwoka and White, eds., *The Antitrust Revolution*, Harper Collins (1993).
- "Sustainability and the Entry Process," American Economic Review (May 1981) pp. 272-277.
- "Open Entry and Cross-Subsidization in Regulated Markets," in Gary Fromm, ed., *Economics of Public Regulation*, National Bureau of Economic Research and M.I.T. Press, Cambridge, Massachusetts, 1981.

Other Papers

"Microsoft Plays Hardball: Use of Exclusionary Pricing and Technical Incompatibility to Maintain Monopoly Power in the Market for Operating Software," co-authored with Frederick R. Warren-Boulton and Glenn A. Woroch, presented at Columbia University Institute for Tele-Information on Sustaining Competition in Network Industries through Regulating and Pricing Areas, November 1993.

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- "The Economics of Intellectual Property Protection for Software: The Proper Role for Copyright," co-authored with Frederick R. Warren-Boulton and Glenn A. Woroch, presented at American Council for Interoperable Systems, June 1994.
- "The Effect of Deregulation on Cable Subscribers," co-authored with John Woodbury, Oct. 1990, presented at American Enterprise Institute conference, Policy Approaches to Deregulation of Network Industries.
- "The Economics of Bell Operating Company Diversification in the Post-Divesture Telecommunications Industry," co-authored with Stephen Silberman, with the assistance of Roger Noll, ICF, Inc., September 1986.
- "A Framework for Economic Analysis of Electronic Media Concentration Issues," co-authored with Bruce Owen, Economists, Inc., December 1982.

Other Professional Experience

Journal referee: International Economic Review and Journal of Industrial Economics.

Invited discussant: Econometric Society session on predation and antitrust, 1980 American

Economic Association meetings, Denver, Colorado.

Trial Testimony

Testified on market power, market definition and vertical restraint issues in <u>Tarrent v. Trane</u> (November 1993).

Expert witness for the Antitrust Division on the Detroit Newspaper Joint Operating Agreement (August 1987). Testified that the Detroit *Free Press* was not a failing newspaper when it agreed to joint operations.

Deposition Testimony

• PMBR v. Harcourt Brace Jovanovich, et.al (February 1994).

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- Deposed in Detroit JOA proceeding (July 1987).
- Deposed by the FTC concerning Henkel's acquisition of Parker Chemical.
- U.S. v. Kentucky Utilities. (July 1985).

Expert Statements Submitted to Regulatory Agencies

- "The Economics of Line of Business Restrictions and Structural Separations," co-authored with Stephen Silberman, January 1986, submitted on behalf of MCI in Federal Communications Commission Docket No. CC 85-229.
- "An Analysis of the Utility of Price Cap Regulation as Applied to the Local Exchange Carriers," co-authored with Stephen Silberman, December 1987, submitted on behalf of MCI in Federal Communications Commission Docket No. CC 87-313.
- "The Choice of Productivity Offsets for Rate Cap Regulation," July 1988, submitted on behalf of MCI in Federal Communications Commission Docket No. CC 87-313.
- "The Economics of Local Telephone Company Integration into the Retailing of Video Programming," December 1988, submitted on behalf of the National Cable Television Association in the Federal Communications Commission Docket No. CC 87-266.
- "The Economic Effects of Cable Deregulation," co-authored with John Woodbury, Frederick Warren-Boulton and Daniel Sherman, May 1990, submitted on behalf of the National Cable Television Association in Federal Communications Commission MM Docket No. 90-4.
- Affidavit concerning Expanded Interconnection with Local Telephone Company Facilities, September 1991, submitted on behalf of MCI in Federal Communications Commission Docket No. CC 91-41, ENF-87-14.
- Affidavit, co-authored with Robert J. Reynolds, concerning an FERC abandonment proceeding, October 1991, submitted on behalf of Sun Refining and Marketing Company in FERC Docket No. CP91-2819-000.